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10/809,316	03/24/2004	David M. Durham	42P19298	6497

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EXAMINER	
SHIU, HO T	

ART UNIT	PAPER NUMBER
2457	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/809,316	DURHAM ET AL.	
	Examiner	Art Unit	
	HO SHIU	2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,12-29,31-48,50-67 and 69-76* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,12-29,31-48,50-67 and 69-76* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *15 July 2008, 09 September 2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-10, 12-29, 31-48, 50-67, and 69-76 are pending in this application. Claims 1, 20, 39, and 58 have been amended and claims 11, 30, 49, and 68 have been cancelled by amendment filed by Applicant on 07/15/2008. The Examiner notes that on page 18 of Applicant's amendment that the Applicant has mentioned that in Claim 20 and 39, they are claiming a physical components of a host system interconnected by a bi-directional agent bus to overcome the Examiner's rejection as Applicant's have done to claims 1 and 58 by adding the limitation "physical bi-directional agent". However, it seems that the applicant's have not amended claims 20 and 39 to recite "a physical bi-directional agent bus".

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1-10, 12-16, 18-29, 31-35, 37-48, 50-54, 56-67, 69-73, and 75-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gibbons et al. (US Patent # 6,243,809 B1, hereinafter Gibbons) in view of Rakavy et al. (US Patent # 5,978,912 B2, hereinafter Rakavy) and in further view of Falik et al. (US Patent #**

7,318,173 B1, hereinafter Falik). Gibbons and Rakavy are cited in the Information Disclosure Statement filed by applicant on 05/09/2006.

4. With respect to claim 1, Gibbons discloses an apparatus comprising: an embedded firmware agent (fig. 6, col. 9, lines 34-37) having instructions that cause the embedded firmware agent to selectively operate in a management mode (col. 9, lines 37-43) during which a host operating system relinquishes control of a host system in which the embedded firmware agent resides (col. 2, lines 14-30); an embedded controller agent (fig. 7, col. 9, lines 44-52) that operates independently of the host operating system (col. 2, lines 14-30) and selectively invokes the management mode (col. 9, lines 45-52), and a bi-directional agent bus coupled between the embedded firmware agent and the embedded controller agent to transmit messages between the embedded firmware agent and the embedded controller agent (fig. 6, col. 9, lines 34-37, fig. 7, col. 9, lines 44-52, fig. 2, col. 9, lines 36-52, in the specification [0019] a bi-directional agent bus can be any bi-directional communication mechanism. The embedded firmware agent of Gibbons (fig. 6, col. 9, lines 34-37) and the embedded controller agent (fig. 7, col. 9, lines 44-52) communicate via memory locations (fig. 2 (34), col. 9, lines 36-52) which is considered a bi-directional communication mechanism).

Gibbons does not clearly disclose the embedded controller agent having a network interface to allow the embedded controller agent to communicate over a network independently of the host operating system, an embedded firmware agent

coupled within a host system having memory to store instructions, an embedded controller agent coupled within the host system having memory to store instructions that cause the embedded controller to operate, and a physical bi-directional agent bus coupled between the embedded firmware agent and the embedded controller agent.

In the same field of endeavor, Rakavy discloses the embedded controller agent having a network interface to allow the embedded controller agent to communicate over a network independently of the host operating system (col. 1, lines 7-14, col. 4, lines 4-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gibbons with the teachings of Rakavy in order to enhance a computer's BIOS to accommodate remote access and maintenance without the aid of the operating system executing on the computer.

However, Gibbons and Rakavy does not clearly disclose an embedded firmware agent coupled within a host system having memory to store instructions, an embedded controller agent coupled within the host system having memory to store instructions that cause the embedded controller to operate, and a physical bi-directional agent bus coupled between the embedded firmware agent and the embedded controller agent.

In the same field of endeavor, Falik discloses an embedded firmware agent coupled within a host system having memory to store instructions (col. 4, lines 50-62), an embedded controller agent coupled within the host system having memory to store instructions that cause the embedded controller to operate (col. 4, lines 65-6, col. 5, lines 1-10), and a physical bi-directional agent bus coupled between the embedded

firmware agent and the embedded controller agent (Fig. 4, col. 4, lines 25-45, col. 5, lines 6-26, SMBus is a physical bi-directional bus).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gibbons and Rakavy with the teachings of Falik in order to remotely select a BIOS even if the CPU is not functioning.

5. With respect to claim 20, Gibbons discloses, a method comprising: invoking a management mode (col. 9, lines 45-52) in a host system in which a host operating system temporarily relinquishes control of the host system (col. 2, lines 25-33), and servicing requests from the embedded controller agent during the management mode with an embedded firmware agent by communicating with the embedded controller agent over a bidirectional agent bus (fig. 6, col. 9, lines 34-37, fig. 7, col. 9, lines 44-52, fig. 2, col. 9, lines 36-52, in the specification [0019] a bi-directional agent bus can be any bi-directional communication mechanism. The embedded firmware agent of Gibbons (fig. 6, col. 9, lines 34-37) and the embedded controller agent (fig. 7, col. 9, lines 44-52) communicate via memory locations (fig. 2 (34), col. 9, lines 36-52) which is considered a bi-directional communication mechanism).

Gibbons does not clearly disclose with an embedded controller agent having a network connection that operates independently of the host operating system, an embedded firmware agent coupled within a host system having memory to store instructions, an embedded controller agent coupled within the host system having memory to store instructions that cause the embedded controller to operate.

In the same field of endeavor, Rakavy discloses an embedded controller agent having a network connection that operates independently of the host operating system (col. 1, lines 7-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gibbons with the teachings of Rakavy in order to enhance a computer's BIOS to accommodate remote access and maintenance without the aid of the operating system executing on the computer.

However, Gibbons and Rakavy does not clearly disclose an embedded firmware agent coupled within a host system having memory to store instructions, an embedded controller agent coupled within the host system having memory to store instructions that cause the embedded controller to operate.

In the same field of endeavor, Falik discloses an embedded firmware agent coupled within a host system having memory to store instructions (col. 4, lines 50-62), an embedded controller agent coupled within the host system having memory to store instructions that cause the embedded controller to operate (col. 4, lines 65-6, col. 5, lines 1-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gibbons and Rakavy with the teachings of Falik in order to remotely select a BIOS even if the CPU is not functioning.

6. With respect to claim 39, Gibbons discloses an article comprising a computer-readable medium having stored thereon instructions that, when executed, cause one or

more processing elements to: invoke a management mode (col. 9, lines 45-52) in a host system in which a host operating system temporarily relinquishes control of the host system (col. 2, lines 25-33); and service requests from the embedded controller agent during the management mode with an embedded firmware agent by communicating with the embedded controller agent over a bi-directional agent bus (fig. 6, col. 9, lines 34-37, fig. 7, col. 9, lines 44-52, fig. 2, col. 9, lines 36-52, in the specification [0019] a bi-directional agent bus can be any bi-directional communication mechanism. The embedded firmware agent of Gibbons (fig. 6, col. 9, lines 34-37) and the embedded controller agent (fig. 7, col. 9, lines 44-52) communicate via memory locations (fig. 2 (34), col. 9, lines 36-52) which is considered a bi-directional communication mechanism).

Gibbons does not clearly disclose an embedded controller agent having a network connection that operates independently of the host operating system, an embedded firmware agent coupled within a host system having memory to store instructions, an embedded controller agent coupled within the host system having memory to store instructions that cause the embedded controller to operate.

In the same field of endeavor, Rakavy discloses an embedded controller agent having a network connection that operates independently of the host operating system (col. 1, lines 7-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gibbons with the teachings of

Rakavy in order to enhance a computer's BIOS to accommodate remote access and maintenance without the aid of the operating system executing on the computer.

However, Gibbons and Rakavy does not clearly disclose an embedded firmware agent coupled within a host system having memory to store instructions, an embedded controller agent coupled within the host system having memory to store instructions that cause the embedded controller to operate.

In the same field of endeavor, Falik discloses an embedded firmware agent coupled within a host system having memory to store instructions (col. 4, lines 50-62), an embedded controller agent coupled within the host system having memory to store instructions that cause the embedded controller to operate (col. 4, lines 65-6, col. 5, lines 1-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gibbons and Rakavy with the teachings of Falik in order to remotely select a BIOS even if the CPU is not functioning.

7. With respect to claim 58, Gibbons discloses a system comprising: a bus (col. 3, lines 47-50); a digital signal processor coupled with the bus (col. 4, lines 14-25, fig. 6, col. 9, lines 34-37); an embedded firmware agent coupled with the bus having instructions that cause the embedded firmware agent to selectively operate in a management mode (col. 9, lines 37-43) during which a host operating system relinquishes control of a host system in which the embedded firmware agent resides (col. 2, lines 25-33); an embedded controller agent (fig. 7, col. 9, lines 44-52) that

operates independently of the host operating system (col. 2, lines 14-30) and selectively invokes the management mode (fig. 7, col. 9, lines 44-52); and a bi-directional agent bus coupled between the embedded firmware agent and the embedded controller agent to transmit messages between the embedded firmware agent and the embedded controller agent (fig. 6, col. 9, lines 34-37, fig. 7, col. 9, lines 44-52, fig. 2, col. 9, lines 36-52, in the specification [0019] a bi-directional agent bus can be any bi-directional communication mechanism. The embedded firmware agent of Gibbons (fig. 6, col. 9, lines 34-37) and the embedded controller agent (fig. 7, col. 9, lines 44-52) communicate via memory locations (fig. 2 (34), col. 9, lines 36-52) which is considered a bi-directional communication mechanism).

Gibbons does not clearly disclose the embedded controller agent having a network interface to allow the embedded controller agent to communicate over a network independently of the host operating system, an embedded firmware agent coupled within a host system having memory to store instructions, an embedded controller agent coupled within the host system having memory to store instructions that cause the embedded controller to operate, and a physical bi-directional agent bus coupled between the embedded firmware agent and the embedded controller agent..

In the same field of endeavor, Rakavy discloses the embedded controller agent having a network interface to allow the embedded controller agent to communicate over a network independently of the host operating system (col. 1, lines 7-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gibbons with the teachings of

Rakavy in order to enhance a computer's BIOS to accommodate remote access and maintenance without the aid of the operating system executing on the computer.

However, Gibbons and Rakavy does not clearly disclose an embedded firmware agent coupled within a host system having memory to store instructions, an embedded controller agent coupled within the host system having memory to store instructions that cause the embedded controller to operate, and a physical bi-directional agent bus coupled between the embedded firmware agent and the embedded controller agent.

In the same field of endeavor, Falik discloses an embedded firmware agent coupled within a host system having memory to store instructions (col. 4, lines 50-62), an embedded controller agent coupled within the host system having memory to store instructions that cause the embedded controller to operate (col. 4, lines 65-6, col. 5, lines 1-10), and a physical bi-directional agent bus coupled between the embedded firmware agent and the embedded controller agent (Fig. 4, col. 4, lines 25-45, col. 5, lines 6-26, SMBus is a physical bi-directional bus).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gibbons and Rakavy with the teachings of Falik in order to remotely select a BIOS even if the CPU is not functioning.

8. With respect to claims 2, 21, 40 and 59, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses a trusted module coupled with the embedded firmware agent and the embedded controller agent, the trusted

module to perform cryptographic operations to support operations by the embedded controller agent (col. 9, lines 41-60).

9. With respect to claims 3, 22, 41, and 60, Gibbons discloses the embedded controller agent asserts a management interrupt signal to invoke the management mode (col. 9, lines 45-52, in the background of the application [0003], a system management interrupt is also known as SMI).

10. With respect to claims 4, 23, 42, and 61, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the embedded controller agent and the embedded firmware agent interact to provide manageability features to the host system (col. 10, lines 54-65).

11. With respect to claims 5, 24, 43, and 62, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses wherein the manageability features are provided prior to the host operating system being loaded (col. 17, lines 8-18, col. 3, lines 16-25, this is done prior to boot strapping).

12. With respect to claims 6, 25, 44, and 63, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses wherein the manageability features are provided after the host operating system has been loaded

(col. 11, lines 6-19, this is done while real-mode operating systems are running).

13. With respect to claims 7, 26, 45, and 64, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the manageability features are provided concurrently with loading of the host operating system (col. 6, lines 60-65).

14. With respect to claims 8, 27, 46, and 65, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the manageability features comprise host operating system independent update of a flash memory device via the embedded controller agent (col. 7, lines 19-25, copies the network enhanced bios).

15. With respect to claims 9, 28, 47, and 66, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the manageability features comprise monitoring of host functionality and reporting to a remote device via the embedded controller agent (col. 9, lines 20-39, col. 15, lines 60-67, col. 16, lines 1-4).

16. With respect to claims 10, 29, 48, and 67, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the manageability features comprise providing boot services to the host system via the embedded

controller agent (col. 10, lines 60-65).

17. With respect to claims 12, 31, 50, and 69, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the embedded controller agent and the embedded firmware agent interact to provide security features to the host system (col. 9, lines 41-60, security features are enhanced by the bios).

18. With respect to claims 13, 32, 51, and 70, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the security features are provided prior to the host operating system being loaded (col. 7, lines 8-18, col. 3, lines 16-25, this is done prior to boot strapping).

19. With respect to claims 14, 33, 52, and 71, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the security features are provided after the host operating system has been loaded (col. 10, lines 6-19, this is done while real-mode operating systems are running).

20. With respect to claims 15, 34, 53, and 72, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses wherein the security features are provided concurrently with loading of the host operating system (col. 6, lines 60-65).

21. With respect to claims 16, 35, 54, and 73, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses wherein the security features comprise performing verification of the host system (col. 9, lines 45-49) and selectively reporting results to a remote device via the embedded controller agent (col. 9, lines 45-47).

22. With respect to claims 18, 37, 56, and 75, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses wherein the security features comprise providing authentication services for the host system via the embedded controller agent (col. 9, lines 40-45).

23. With respect to claims 19, 38, 57, and 76, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses wherein the security features comprise providing support for mutual authentication of a network communication session (col. 9, lines 50-59).

24. **Claims 17, 36, 55, and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gibbons in view of Rakavy et al. as applied to claims 1, 12, 20, 31, 39, 50, 58, and 69 in further view of Dennis (US Patent # 6,792,556 B1, hereinafter Dennis).**

25. With respect to claims 17, 36, 55, and 74, Gibbons and Rakavy do not disclose wherein the security features comprise performing virus recovery operations via the embedded controller agent.

In the same field of endeavor, Dennis discloses wherein the security features comprise performing virus recovery operations via the embedded controller agent (col. 3, lines 47-59).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Gibbons and Rakavy with the teachings of Dennis in order to restore the boot record if it is a mismatch or if a virus is detected.

Response to Arguments

26. Applicant's arguments with respect to claim 1-10, 12-29, 31-48, 50-67, and 69-76 have been considered but are moot in view of the new ground(s) of rejection.

27. The Examiner notes that on page 18 of Applicant's amendment that the Applicant has mentioned that in Claim 20 and 39, they are claiming a physical components of a host system interconnected by a bi-directional agent bus to overcome the Examiner's rejection as Applicant's have done to claims 1 and 58 by adding the limitation "physical bi-directional agent". However, it seems that the applicant's have not amended claims 20 and 39 to recite "a physical bi-directional agent bus". The Examiner had placed a call on 10/15/2008 to Attorney Paul A. Mendonsa but was unreachable. Examiner has left a voice mail for the Attorney regarding this issue but no contact was made by the

Attorney. The examiner has rejected independent claims 20 and 39 on the face of the claims as amended without the limitation "physical".

Conclusion

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HO SHIU whose telephone number is (571)270-3810. The examiner can normally be reached on Mon-Thur (8:30am - 4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HTS
10/17/2008

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